Section 1:

1. Why is differentiated instruction important in the science classroom?

It is important because every student learns at a different pace, and in their own way. It is especially important in science because everyone comes into a science classroom with different background knowledge and skills. Knowing this, we as science teachers need to unlock the background knowledge and find the best way for our students to learn

1. How it is implemented?

We can implement it by having a variety of instructional methods. This could mean hand outs with different instructions on them, multiple opportunities to display what they’ve learned, and a choice of presentation method. Using multiple examples, as well as going over the background content before hand area all ways of implementing differentiated instruction.

1. Why is differentiated instruction not considered a single strategy?

Differentiated instruction is defined as using multiple strategies to help student achieve their best. Just like dealing with any type of student, you have to have a “grab bag” of different methods and strategies to use. Under the umbrella of differentiated instruction, there is such a multitude of strategies that there is no way it could be defined as a “single strategy”

Section 2:

1. Which strategies do you think you will use most/least often and why?

I really like the RAFT idea, because I knew how effective debates can be. Especially for students who are more verbal people, and like to have opinions, it can be an excellent tool. Also, it gives student a choice. Even adding in a little bit of choice can be the kick a student needs to engage and learn better.

1. Which strategies do you think are the most/least powerful for helping students gain an enduring understanding of the concepts in the course?

Looking at the “design down” article, it mentions the “Know/Do/Be”, which I think is the most powerful strategy. When teachers know what they want students to know, be able to know, and the attitudes they need to come away with. Keeping these 3 pieces of information in mind remind the teachers of how they can modify their lessons for every student, because every student needs to achieve the 3 goals.

1. How do these strategies help facilitate differentiated instruction?

Different teaching strategies ensure that teachers are attempting to reach every student. Changing the teaching strategy allows other types of learners to have access to the required information. If you think of differentiated instruction as trying to reach every student, then using different types of strategies are one way to differentiate.

1. What other techniques might you use to incorporate differentiated instruction?

I would use different types of assessment – not just tests and essays, but visual representations and oral presentations. I would also try to do pre-assessment with students to make sure that I know what they already know, and build off of that.

1. Do you think using differentiated instruction is important for every lesson?  Why or why not?

I think that using DI is an important classroom tool, but it is not required for every lesson. One, you can have choice built into your lesson, which is a strategy, but not necessarily DI. Two, if you differenciate at every turn, it can be very time consuming on the teacher’s part to try and come up with 29 different assignments, or 29 ways to do it. Teachers can always modify lessons, but differentiating for every student every lesson seems out of reach.

1. What are some of the challenges teachers face in using differentiated instruction?

As I said before, one large obstacle is time. It takes a lot more planning time to differentiate lessons and assignments. Also, you don’t want to make it too obvious to students that they are working on something that others aren’t, so you have to come up with a way to differentiate without singling people out. There is also so much choice with strategies that teachers can feel overwhelmed with ideas, and personally, I have a fear of picking the wrong one!

1. How does using differentiated instruction affect the teacher's experience while teaching and the student's experience while learning?

I think that it gives teachers some variety, and makes every day less mundane. If you have been teaching the same class and the same subject for 10 years, using a new strategy can help to make the course more interesting for you. Also, using DI in the classroom for students allows each of them the opportunity to learn in a new way and they might find the way that THEY learn, which will help them out as they continue on their educational journey.